



Description

Dive deep into the realm of Linux Forensics with this comprehensive course, designed to equip participants with hands-on skills in data acquisition, memory analysis, malware detection, and more. Explore real-world scenarios, understand the intricacies of the Linux file system, and master advanced forensic techniques. This course combines theory with practical labs, ensuring a holistic understanding of Linux-based digital investigations.

LINUX FORENSICS

Module 1: Linux Fundamentals

This module provides a comprehensive introduction to Linux fundamentals, then delves into the details of Linux services, including how they are managed and configured. Finally, it equips learners with scripting skills, vital for automation and advanced tasks in Linux environments.

Intro to Linux

- Virtualization
- Basic Commands
- System Files
- Services**
- Installation
- Configuration Files
- Logs Files
- Scripting**
- File Permissions
- Linux Automation

Module 2: Analysis

Log Analysis, it details how to inspect Linux logs for vital clues during an investigation. The File Analysis section teaches methods to dissect Linux file systems and extract meaningful data. Finally, Network Analysis imparts techniques for inspecting network traffic and identifying suspicious patterns or anomalies, essential for cyber investigations.

Log Analysis

- Text Manipulation
- Built-in Logs
- Logs Best Practice

File Analysis

- Metadata
- Carving
- Steganography
- Calls

Network Analysis

- Wireshark
- General Network Tools
- TShark Automation

Module 3: Collecting Evidence

The Artifact section instructs how to locate and interpret Linux system artifacts, invaluable in post-breach investigations. Live Analysis imparts skills to scrutinize active systems, identifying ongoing threats. The Analyzing Images portion discusses methods to inspect and interpret disk images, revealing concealed data or evidence.

Artifacts

- Hashes and Encodings
- User Files
- Understanding Shells
- System Files
- Suspicious User-Info

Live Analysis

- Mounting Partitions
- Dumping Memory
- Cloning HDD
- Log File Advance Search

Captured Images

- Working with FTK
- Detecting Hidden Files and Directories

Module 4: Cyber Security

This module covers essential Network Protocols, providing an understanding of their operations and potential vulnerabilities. It then explores Network Attacks, discussing various attack vectors and strategies. Lastly, the module introduces the concept of hardening, teaching learners how to strengthen a Linux system against possible threats.

Netcat

- Different Uses

Network Protocols

- MiTM
- Analyzing Traffic

Network Attacks

- SSH
- FTP
- Hardening